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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/549,814	04/14/2000	Matthew D. Hendel	MS1-468US	8691

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EXAMINER

TO, BAOQUOC N

ART UNIT	PAPER NUMBER
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2162

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/549,814

Applicant(s)

HENDEL ET AL.

Examiner

Baoquoc N. To

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --.

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/01//2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 and 67-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-57 and 67-75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/01/2005 has been entered.

Claims 1-57 and 67-75 are pending in this application.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 20 and 39 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-12, 14-31, 32-50, 52-57 and 67-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews et al. (US. Patent. No. 6,430,707) in view of Heatlie (US. Patent No. 6,633,876 B1)

Regarding on claims 1, 20 and 39, Mathews teaches a method for generating a dump file, the method comprising:

- a. generating a minidump file that does not include all operating system data (dump image) (col. 2, line 29) by gathering at least:
 - i. thread information for at least one running thread (operating system OS) (col. 3, line 6-64),
 - ii. context information for the thread (thread contains information) (col. 2, line 33) ,
 - iii. callstack information for the thread (col. 4, lines 34-36),
 - iv. process information for a process in which for generating the dump file (the Os is loaded) (col. 2, line 24-27); and
- b. storing the minidump file to a storage medium (dump image are stored on storage area) (co. 3, lines 38-41).

Mathews does not explicitly teach information identifying a reason comprising one of the following reasons: callstack fault, processor fault, and application fault, for generating the minidump file. However, Heatlie teaches information identifying a reason comprising one of the following reasons: callstack fault, processor fault, and application fault, for generating the minidump file (col. 1, lines 16-24). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Mathews' system to include examining only threads to determine the cause of the dump in order minimize the usage of the system resource.

Regarding on claims 2, 23, and 40, Matthews teaches determining when to generate the minidump file (malfunction to generate a dump file) (col. 4, line 1-10).

Regarding on claims 3, 22 and 41, Matthews teaches generating the minidump file further includes gathering processor information about at least one processor (OS operating system) (col. 4, line 31)

Regarding on claims 4 and 42, Matthews teaches determining when to generate the minidump file further determining that an exception (malfunction) has occurred (col. 3, lines 62-63).

Regarding on claims 5, 24 and 43, Matthews teaches the minidump file does not include data stored in global memory (server) (col. 3, line 52).

Regarding on claims 6, 25 and 44, Matthews teaches the minidump file does not include data stored in uninitialized memory (system memory) (col. 3, lines 51).

Regarding on claims 7, 26 and 45, Matthews teaches the minidump file does not include executable instructions (OS operating) used by a processor to execute a program (col. 3, line 15).

Regarding on claims 8, 27, and 46, Matthews teaches the minidump file is a kernel minidump file associated with an operating system and the at least one running thread is the single which encounter an exception (malfunction) (col. 3, lines 62-63).

Regarding on claims 9, 28 and 47, Matthew teaches the callstack information includes kernel stack (stack) information (col. 3, line 34-36).

Regarding on claims 10, 29 and 48, Matthews teaches the process information identifies a process that initiated the thread (thread) (col. 2, line 33).

Regarding on claims 11, 30 and 49, Matthews teaches allocating a buffer space in memory during an initialization process, wherein the buffer space is suitable for storing the gathered information (col. 6, lines 36-37); and

Reserving space on the storage medium suitable for writing the contents of the buffer space (col. 6, lines 37-39).

Regarding on claims 12, 31 and 50, Matthews teaches generating the minidump file further includes initially storing the thread information, the context information, the callstack information, the process information, and the information identifying the reason for generating the minidump file to the buffer space, and then copying the dump file from the buffer space to the storage medium (col. 2, lines 27-41).

Regarding on claims 14, 33 and 52, Matthews teaches the dump file is a user minidump file associated with at least one non-operating system program (col. 3, lines 15-17).

Regarding on claims 15, 34, and 53, Matthews teaches generating the minidump file further includes gathering callstack (stack) information for all running threads (col. 2, line 33).

Regarding on claims 16, 35 and 54, Matthews teaches the callstack information includes a user callstack (stack) (col. 4, line 34-36).

Regarding on claims 17, 36 and 55, Matthews teaches generating the minidump file further includes gathering processor context information for all running threads (col. 6, lines 9-10).

Regarding on claims 18, 37, 56, 69, 72 and 75, Matthews teaches generating the mini dump file further includes gathering a listing of loaded modules (application program are load) for faulting application program (col. 3, lines 21-24).

Regarding on claims 19, 38 and 57, Matthews teaches the minidump file is a directory indexed file that uses relative virtual addresses (RVAs) (col. 6, lines 39-45).

Regarding on claim 21, Mathews teaches generating the minidump file further storing the dump file to a storage medium (dump files reside side on sever 21) (col. 4, lines 1-3).

Regarding on claims 67, 70 and 73, Mathews teaches providing the minidump file to at least one external device (disk 72) (col. 6, lines 8-9).

Regarding on claims 68, 71 and 74, Matthews teaches upon system re-initialization, transferring the minidump file from the storage medium to at least one external device (sever is an external device) (col. 2, line 38).

4. Claims 13, 32 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthews et al. (US. Patent. No. 6,430,707) in view of Heatlie (US. Patent No. 6,633,876 B1) in view of Joannin (US. Patent No. 5,603,033).

Regarding on claims 13, 32 and 51, Matthews and Heatlie do not explicitly teach upon re-initialization, after having stored the minidump file to the storage medium, accessing the minidump file on the storage medium and using at least a portion of the minidump to further understand an exception that was at least one reason for generating the minidump file. However, Joannin teaches, upon re-initialization, after having stored the minidump file to the storage medium, accessing the minidump file on

Art Unit: 2162

the storage medium and using at least a portion of the minidump to further understand an exception that was at least one reason for generating the minidump file (col. 6, lines 44-51). Therefore, it would have been obvious to one ordinary skill in the art the time of the invention was made to include accessing the minidump file as after the re-initialization as taught by Joannin in order identify the cause for generating the dump file in order to restore the file back to the user when the system is rebooted.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baoquoc N. To whose telephone number is at 571-272-4041 or via e-mail BaoquocN.To@uspto.gov. The examiner can normally be reached on Monday-Friday: 8:00 AM – 4:30 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached at 571-272-4107.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:


Commissioner of Patents and Trademarks
Washington, D.C. 20231.

The fax numbers for the organization where this application or proceeding is assigned are as follow:

(703) 872-9306 [Official Communication]

Baoquoc N. To

June 24, 2005


JEAN M. CORRIELUS
PRIMARY EXAMINER